

IN THE SPECIFICATION

Rewrite the paragraph that begins at page 15, line 15 as follows:

FIG. 2 is a graph showing X - Y coordinates with X-axis representing R value (calculated down to the second decimal place) of ISO Color Contribution Index (ISO/CCI) specified in JIS7097 (expression of color contribution by ISO/CCI for taking a photograph) calculated on the basis of transmittance of a glass bulk within a range from 3250nm to 689nm specified in JOGIS02¹⁹⁷⁵ and Y-axis representing refractive index (nd).

Rewrite the paragraph that begins at page 17, line 24 as follows:

For achieving particularly good G and R values of ISO/CCI, the ratio of $(\text{BaO} + \text{Nb}_2\text{O}_5) / \{(\text{TiO}_2 + \text{WO}_3) \times 3 + \text{Bi}_2\text{O}_3 + \text{Nb}_2\text{O}_5\}$ calculated in mass % of BaO, Nb₂O₅, TiO₂, WO₃ and Bi₂O₃ should preferably be a greater value than 1.0.

1. (original) An optical glass comprising, in the mass percent:

P ₂ O ₅	15 - 35%
Nb ₂ O ₅	40 - 60%
Na ₂ O	0.5% to less than 15% and
BaO	3% to less than 25%;

having a ratio in mass % of (BaO + Nb₂O₅)/(TiO₂ + WO₃)x 3 + Bi₂O₃ + Nb₂O₅) > 1.0; being free of Pb and As; and having a refractive index (nd) within a range from 1.78 to 1.90 and an Abbe number (vd) within a range from 18 to 27.

2.(original) An optical glass as defined in claims 1 further comprising, in mass %

Gd ₂ O ₃	0 - 5% and/or
K ₂ O	0 - 10% and/or
Li ₂ O	0 - 10% and/or
Bi ₂ O ₃	0 - 5% and/or
MgO	0 - 10% and/or
CaO	0 - 10% and/or
SrO	0 - 10% and/or
ZnO	0 - 3% and/or
SiO ₂	0 - 5% and/or
B ₂ O ₃	0 - 5% and/or
Al ₂ O ₃	0 - 4% and/or
Ta ₂ O ₅	0 - 5% and/or
ZrO ₂	0 - 3% and/or
TiO ₂	0 - 5% and/or
WO ₃	0 - 8% and/or
Sb ₂ O ₃	0 - 0.02%.

3. (original) An optical glass as defined in claim 1 which, in X - Y rectangular co-ordinates with X-axis representing ISO Color Contribution Index G calculated by using spectral transmittance of a glass material measured by the Japan Optical Glass Industry Standard JOGIS02-¹⁹⁷⁵ (Measuring Method for Degree of Coloring of Optical Glass) and Y-axis

representing refractive index (nd), is within an area having a smaller value of ISO Color Contribution Index G and a higher refractive index (nd) than a straight line (SL3 – G) : $Y = 0.0277X + 1.725$ and which, in X – Y rectangular co-ordinates with X-axis representing ISO Color Contribution Index R calculated by using spectral transmittance of a glass bulk material measured by the Japan Optical Glass Industry Standard JOGIS02-¹⁹⁷⁵ and Y-axis representing refractive index (nd), is within an area having a smaller value of ISO Color Contribution Index R and a higher refractive index (nd) than a straight line (SL3 – R) : $Y = 0.0277X + 1.725$.

4. (original) An optical glass as defined in claim 1 wherein the sum of sectional areas of bubbles contained in glass of 100ml shown in Table 1 of the Japan Optical Glass Industry Standard JOGIS02-¹⁹⁹⁴ (Measuring Method for Bubble in Optical Glass) is Class 1 – Class 4 and the sum of sectional areas of inclusion contained in glass of 100ml shown in Table 1 of the Japan Optical Glass Industry Standard JOGIS02-¹⁹⁹⁴ (Measuring Method for Inclusion in Optical Glass) is Class 1 – Class 4

5. (original) An optical glass as defined in claim 1 which, in X - Y rectangular co-ordinates with X-axis representing ISO Color Contribution Index G calculated by using spectral transmittance of a glass material measured by the Japan Optical Glass Industry Standard JOGIS02-¹⁹⁷⁵ (Measuring Method for Degree of Coloring of Optical Glass) and Y-axis representing refractive index (nd), is within an area having a smaller value of ISO Color Contribution Index G and a higher refractive index (nd) than a straight line (SL5 – G) : $Y = 0.0329X + 1.7174$ and which, in X – Y rectangular co-ordinates with X-axis representing ISO Color Contribution Index R calculated by using spectral transmittance of a glass bulk measured by the Japan Optical Glass Industry Standard JOGIS02-¹⁹⁷⁵ and Y-axis representing refractive index (nd), is within an area having a smaller value of ISO Color Contribution Index R and a higher refractive index (nd) than a straight line (SL5 – R) : $Y = 0.0288X + 1.713$.

6. (original) An optical glass as defined in claim 1 comprising, in the mass percent:

P_2O_5 15 - 35%

Nb_2O_5 40 - 60%

Na ₂ O	0.5% to less than 15% and
BaO	3% to less than 25;
and further comprising, in mass %:	
Gd ₂ O ₃	0 – 4% and/or
K ₂ O	0 – 6% and/or
Li ₂ O	0% to less than 6% and/or
Bi ₂ O ₃	0% to less than 5% and/or
MgO	0% to less than 10% and/or
CaO	0% to less than 10% and/or
SrO	0% to less than 10% and/or
ZnO	0 – 3% and/or
SiO ₂	0 – 5% and/or
B ₂ O ₃	0 – 5% and/or
Al ₂ O ₃	0 – 4% and/or
Ta ₂ O ₅	0 – 5% and/or
ZrO ₂	0 – 3% and/or
Sb ₂ O ₃	0 – 0.02% and/or
TiO ₂	0 – 5% and/or
WO ₃	0 – 8% and/or

a fluoride or fluorides of a metal element or elements contained in the above metal oxides, a total amount of F contained in the fluoride or fluorides 0 – 5%; and having a ratio in mass % of (BaO + Nb₂O₅)/{(TiO₂ + WO₃)x + Bi₂O₃ + Nb₂O₅} > 1.0.

7. (original) An optical glass as defined in claim 1 comprising, in the mass percent:

P ₂ O ₅	15 - 35%
Nb ₂ O ₅	40 - 60%
Na ₂ O	0.5% to less than 15% and
BaO	3% to less than 25;

and further comprising, in mass %:

Gd ₂ O ₃	0.1 – 4% and/or
K ₂ O	0 – 6% and/or

Li ₂ O	0% to less than 6% and/or
Bi ₂ O ₃	0% to less than 4.5% and/or
MgO	0% to less than 10% and/or
CaO	0% to less than 10% and/or
SrO	0% to less than 10% and/or
ZnO	0 – 3% and/or
SiO ₂	0% to less than 5% and/or
B ₂ O ₃	0% to less than 5% and/or
Al ₂ O ₃	0 – 4% and/or
Ta ₂ O ₅	0 – 5% and/or
ZrO ₂	0 – 3% and/or
Sb ₂ O ₃	0 – 0.01% and/or
TiO ₂	0 – 5% and/or
WO ₃	0 – 8% and/or

a fluoride or fluorides of a metal element or elements contained in the above metal oxides, a total amount of F contained in the fluoride or fluorides 0 – 5%; and having a ratio in mass % of (BaO + Nb₂O₅)/{(TiO₂ + WO₃)x 3 + Bi₂O₃ + Nb₂O₅} > 1.0.

8. (original) An optical glass as defined in claim 1 which, in X - Y rectangular co-ordinates with X-axis representing ISO Color Contribution Index G calculated by using spectral transmittance of a glass material measured by the Japan Optical Glass Industry Standard JOGIS02-¹⁹⁷⁵ (Measuring Method for Degree of Coloring of Optical Glass) and Y-axis representing refractive index (nd), is within an area having a smaller value of ISO Color Contribution Index G and a higher refractive index (nd) than a straight line (SL8 – G) : Y = 0.0329X + 1.7245 and which, in X – Y rectangular co-ordinates with X-axis representing ISO Color Contribution Index R calculated by using spectral transmittance of a glass bulk measured by the Japan Optical Glass Industry Standard JOGIS02-¹⁹⁷⁵ and Y-axis representing refractive index (nd), is within an area having a smaller value of ISO Color Contribution Index R and a higher refractive index (nd) than a straight line (SL8 – R) : Y = 0.0288X + 1.7208.

9. (original) An optical glass as defined in claim 1 comprising, in the mass percent:

P ₂ O ₅	15 - 35%
Nb ₂ O ₅	42 - 60%
Na ₂ O	0.5% to less than 10% and
BaO	5% to less than 25;

and further comprising, in mass %:

Gd ₂ O ₃	0.1 - 4% and/or
K ₂ O	0 - 6% and/or
Li ₂ O	0% - 2% and/or
Bi ₂ O ₃	0% to less than 4.5% and/or
MgO	0% to less than 10% and/or
CaO	0% to less than 10% and/or
SrO	0% to less than 10% and/or
ZnO	0 - 3% and/or
SiO ₂	0.1% to less than 4% and/or
B ₂ O ₃	0.2% to less than 5% and/or
Al ₂ O ₃	0 - 4% and/or
Ta ₂ O ₅	0 - 5% and/or
ZrO ₂	0 - 3% and/or
Sb ₂ O ₃	0 - 0.01% and/or
TiO ₂	0 - 3% and/or
WO ₃	0 - 5% and/or

a fluoride or fluorides of a metal element or elements contained in the above metal oxides, a total amount of F contained in the fluoride or fluorides 0 - 5%; and having a ratio in mass % of (BaO + Nb₂O₅)/(TiO₂ + WO₃)x 3 + Bi₂O₃ + Nb₂O₅) > 1.1.

10. (original) An optical glass comprising, in the mass percent:

P ₂ O ₅	15 - 35%
Nb ₂ O ₅	40 - 60%
Gd ₂ O ₃	0.1 - 4%
Na ₂ O	0.5% to less than 10% and

K₂O 0 - 6%

where the total amount of Na₂O and K₂O is 0.5% to less than 10%

Bi₂O₃ 0% to less than 5%

MgO 0% to less than 10%

CaO 0% to less than 10%

SrO 0 to less than 10%

BaO 0.5% to less than 25%

ZnO 0 - 3%

SiO₂ 0% to less than 5%

B₂O₃ 0.2% to less than 5%

Al₂O₃ 0 - 3%

Ta₂O₅ 0 - 5%

ZrO₂ 0 - 3%

Sb₂O₃ 0 - 0.03%

and a fluoride or fluorides of a metal element or elements contained in the above metal oxides, a total amount of F contained in the fluoride or fluorides 0 - 5%; being free of Pb, WO₃ and TiO₂ and having a refractive index (nd) within a range from 1.78 to 1.90 and an Abbe number (vd) within a range from 18 to 27.

11. (original) An optical glass comprising, in mass percent:

P₂O₅ 15 - 30%

Nb₂O₅ 42 - 60%

Gd₂O₃ 0.1 - 4%

Na₂O 0.5 - 9.6%

K₂O 0 - 6%

where the total amount of Na₂O and K₂O is 0.5% to 9.6%

Bi₂O₃ 0 - 4.5%

MgO 0% to less than 10%

CaO 0% to less than 10%

SrO 0% to less than 10%

BaO 0.5% to less than 25%

ZnO	0 – 3%
SiO ₂	0.1% to less than 4%
B ₂ O ₃	0.2% to less than 5%
Al ₂ O ₃	0 – 3%
Ta ₂ O ₅	0 – 5%
ZrO ₂	0 – 3%
Sb ₂ O ₃	0 – 0.03%.

and a fluoride or fluorides of a metal element or elements contained in the above metal oxides, a total amount of F contained in the fluoride or fluorides 0 – 5%; being free of Pb, WO₃ and TiO₂ and having a refractive index (nd) within a range from 1.78 to 1.90 and an Abbe number (vd) within a range from 18 to 27.

12. (original) An optical glass as defined in claim 1 which, the sum of sectional areas of bubbles contained in glass of 100ml shown in Table 1 of the Japan Optical Glass Industry Standard JOGIS12-¹⁹⁹⁴ (Measuring Method for Bubbles in Optical Glass) is Class 1 – Class 3, the sum of sectional areas of inclusion contained in glass of 100ml shown in Table 1 of Japan Optical Glass Industry Standard JOGIS13-¹⁹⁹⁴ (Measuring Method for Inclusion in Optical Glass) is Class 1 – Class 3, and the degree of striae shown in Table 2 of the Japan Optical Glass Industry Standard JOGIS11-¹⁹⁷⁵ (Measuring Method for Striae in Optical Glass) is Class 1-Class 3.

13. (original) An optical glass as defined in claim 1 which, the degree of striae shown in Table 1 of the Japan Optical Glass Industry Standard JOGIS11-¹⁹⁷⁵ (Measuring Method for Striae in Optical Glass) is Class 1 or Class 2, the sum of sectional areas of bubbles contained in glass of 100ml shown in Table 1 of Japan Optical Glass Industry Standard JOGIS12-¹⁹⁹⁴ (Measuring Method for Bubble in Optical Glass) is Class 1 or Class 2, and the sum of sectional areas of inclusion contained in glass of 100ml shown in Table 1 of Japan Optical Glass Industry Standard JOGIS13-¹⁹⁹⁴ (Measuring Method for Inclusion in Optical Glass) is Class 1 or Class 2.

14. (original) An optical glass as defined in claim 1 having a refractive index (nd) within a

range from 1.80 to 1.85 and an Abbe number (vd) within a range from 23.8 to 25.7.